



# BLACK LOWE & GRAHAM<sup>PLLC</sup>

*Intellectual Property Attorneys*

701 Fifth Avenue, Suite 4800  
Seattle, Washington 98104  
206.381.3300 • F: 206.381.3301  
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## FACSIMILE COVER SHEET

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APR 21 2004

FAX TO: Examiner Travis M. Reis  
FACSIMILE NO: 703.872.9306  
SUBJECT: APPLICATION SERIAL NO. 09/881,856  
FROM: David A. Lowe, Esq.  
DATE: April 21, 2004  
OUR REFERENCE: ADAP-1-1002

# OFFICIAL

MESSAGE: Please see attached declarations and documentation in the form of a return postcard from the PTO acknowledging receipt of the Office Action along with 6 declarations on January 30, 2004. Please contact Mr. Lowe at your earliest convenience once you have reviewed the declarations. Thank you for your assistance.

The contents of this facsimile are privileged and confidential and intended only for the named recipient. If you received this facsimile in error, please notify us immediately by telephone and either destroy this copy or return it to us by mail.

This facsimile is 20 pages in length, including the cover sheet. Please call 206.381.3300 immediately if any pages need to be retransmitted.



Attorney Docket: ADAP-1-1002  
Filed by: DAURB  
Date Mailed: January 27, 2004  
Mailed via First Class Mail  
Re: Response to Final Office Action & RCE  
Serial No.: 09/881,856  
Date Filed: June 13, 2001  
Title: SPACE CONFIGURATION DESIGN TOOL

- Transmittal Letter (1 pg)
- Response to Final Office Action (20 pgs + 6 Declarations)
- Check No. 10111 in the amount of \$484 (RCE filing fee & additional claims)
- Return Receipt Post Card

DOCKETED<sup>21/4</sup>  
RR 73F

Action: Post card

Due Dates: \_\_\_\_\_

Start / 7/27/04

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## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Susan M. Duncan

Attorney Docket No. ADAP-1-1002

Serial No.: 09/881,856

Group Art Unit: 2859

Filing Date: June 13, 2001

Examiner: T. Reis

Title: SPACE CONFIGURATION DESIGN TOOL

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DECLARATION UNDER 37 C.F.R. § 1.132 OF SUSAN M. DUNCAN  
TO THE COMMISSIONER OF PATENTS:

I, Susan M. Duncan, residing at 1213 6th Street NE, Auburn, Washington 98002,  
5 pursuant to 37 C.F.R. § 1.132, hereby state as follows:

1. I am the inventor of the subject matter of the above-identified patent  
application. I am also the founder and president of ADaptations inc.® I have been involved  
with accessibility issues for more than 20 years. Since 1978, my company, ADaptations inc.,  
has specialized in planning for and providing accessibility and space planning services for a  
10 wide variety of industries. Since the mid 1980's, I have personally taught more than 400  
classes regarding accessibility and space planning at five different universities or other  
schools of higher education.

2. Professionals in the fields of architecture, design, manufacturing, and  
construction, as well as building code officials and similar types of technical support  
15 personnel, have had very limited support in terms of design tools necessary to plan effective  
accessible layouts. The challenge is to design residential and commercial space to support the  
accessibility needs of persons with disabilities and the aging population. Building designers,  
contractors, and technical support personnel must be able to efficiently and effectively  
configure interior space as well as access into and out of building structures to accommodate  
20 the accessible needs.

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3. Various design tools have been used to attempt to accomplish this goal. Traditionally, planning for accessibility has been primarily accomplished by professionals using an architectural scale. More recent, within the last approximately ten years, CAD programs have integrated icons representing the wheelchair icon footprint and dimensions.

5 These icons are inserted on drawings to demonstrate relative clearances of elements within the drawings and are static in nature.

4. During the last approximately ten years, various template products have been used in the industry as an overlay on top of plans to assist with approximating wheelchair spacing. A good example is the drawing template or overlay provided by Bobrick Washroom  
10 Equipment, Inc. The 4"x 6" template is a clear hard plastic overlay used on top of plans to assist with approximating wheelchair maneuverability and planning. This template has been a complimentary marketing piece promoting restroom planning in an effort to increase the sale of Bobrick products.

5. Existing design tools for accessibility and space planning suffer from severe  
15 practical limitations. Overall, current systems are limited to marking or indicating a static location on a design plan; they do not demonstrate and visually describe the actual movement of a person using a wheelchair or other types of mobility equipment as it negotiates the space. For example, it is difficult if not impossible to demonstrate and visually show how a person using a wheelchair actually maneuvers in spaces using an architectural scale. Using an  
20 architectural scale verifies clearances but does not show the movement. Using the Bobrick template as an overlay requires manual manipulation of the template. Hence fingers obscure the visual movement being demonstrated. The same limitations are seen using other types of templates as well as the CAD program: each can be used to mark a location on a drawing or plan with a wheelchair icon footprint, but such static representations cannot be used to show  
25 actual maneuverability within the space.

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6. As a result of limitations with current accessibility tools or systems, errors are frequently made in the resulting design or construction due to a lack of understanding as to how a person uses a wheelchair and the space required in which to maneuver the wheelchair.

7. Largely as a result of the limitations of and disadvantages associated with existing accessibility tools and system, as well as the general lack of education on the issue, the market has been slow to embrace accessibility in design and construction. The passing of the Civil Rights Law, the Americans with Disabilities Act (ADA of 1990), helped to increase awareness and demand on professionals to produce more environmental changes. About this time, colleagues in the design field began promoting "Universal Design"—an approach to design that embraces a philosophy of designing products and environments usable by all people. While these efforts have created an increasing need for education and support materials to properly address accessibility and space planning needs, there has long been a void—unmet by the above-described tools and system—when it comes to useful, accurate and ultimately practical accessibility and space planning tools.

8. The space configuration design tool of the present invention uniquely provides an icon or component scaled to indicate turning radius to imitate the turning radius and wheelchair footprint when used in association with design plans having hallways, doorways, stairways, rooms and other spaces of a known scale. The design tool allows designers, contractors, students and a host of other industry personnel to quickly, easily, accurately and visually evaluate accessibility issues for building planning purposes and thereby provide functional and space planning in the fields of architecture, interior design, and construction of residential and commercial structures. By so doing, the space configuration design tool of the present invention overcomes the limitations and disadvantages of the existing accessibility tools and systems to fulfill the long-felt, unmet need of the industry.

9. We are just now officially launching the world-wide sales of the Visualizer™ Set product—the commercial embodiment of the space configuration design tool of the

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present invention. ADaptations inc. is the only company authorized to manufacture and sell the Visualizer Set. The demand has been incredible. We have received advanced orders for more than 100 units from more than 70 individuals or companies around the world, and expect that orders will continue to pour in as product marketing and word-of-mouth advertising of the product increases.

I hereby further declare that all statements made herein of my own knowledge are true, and that all statements made on information and belief are believed to be true, and further, that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that willful false statements may jeopardize the validity of the application or any patent issued thereon.

Date: January 23, 2004

Susan M. Duncan  
Susan M. Duncan

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ADAP-1-100202CD1SD

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701 Fifth Avenue, Suite 4800  
Seattle, Washington 98104  
206.381.3300 • F 206.381.3301

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Susan M. Duncan

Attorney Docket No. ADAP-1-1002

Serial No.: 09/881,856

Group Art Unit: 2859

Filing Date: June 13, 2001

Examiner: T. Reis

Title: SPACE CONFIGURATION DESIGN TOOL

DECLARATION UNDER 37 C.F.R. § 1.132 OF SANDRA HARTJE  
TO THE COMMISSIONER OF PATENTS:

I, Sandra Hartje, Associate Professor at Seattle Pacific University, Seattle,  
5 Washington 98119, pursuant to 37 C.F.R. § 1.132, hereby state as follows:

1. I am a tenured Associate Professor of Interior Design and Housing in the  
Department of Family and Consumer Sciences at Seattle Pacific University, having taught  
full-time in this program since September of 1989. I am also the program director for the  
interior design program. I have a B.S. degree in Home Economics Education (1979), and  
10 M.S. (1985) and Ph.D. (1998) degrees in Design, Housing and Apparel, all from the  
University of Minnesota. In addition, I completed two certificate programs. The first was a  
certificate program in Computer Aided Design (CAD) Applications completed in 1995 at the  
University of Washington. The second was a 70-hour lighting design workshop sponsored by  
the Illuminating Engineering Society of North America and offered at the University of New  
15 Hampshire. I have also completed approximately 15 credits in graduate courses in  
Architecture and Urban Planning at the University of Washington, which were applied  
toward my doctoral course work.

2. In my capacity as an Associate Professor, my responsibilities include  
teaching, advising, and curriculum development in the Interior Design program, as well as  
20 supervising internships for students in Interior Design. In an internship, the student receives  
college credit for the work/hours they complete in a position related to interior design. I teach

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a number of classes, including, but not limited to: Introduction to Interior Design, Housing, Interior Design Resources and Materials, Introduction to AutoCAD (R2000), CAD Applications in Interior Design (ArchT 14.5), and Lighting Design. I also serve as the faculty representative for liaison programs with the Fashion Institute of Design and Merchandising (FIDM) in Los Angeles, California and with Bellevue Community College in Bellevue, Washington for interior design transfer students.

3. My responsibilities as a faculty member, advisor, and curriculum developer require that I stay current in all areas of the Interior Design industry. I accomplish this through my professional associations with the local chapters of the American Society of Interior Design (ASID), The Northwest Society of Interior Design (NWSID), the Seattle Design Center, the Interior Design Educators Council (IDEC), the Housing Education and Research Association (HERA), the American Association of Family and Consumer Sciences (AAFCS), and other organizations in the industry. In addition to my university faculty responsibilities, I also draft floor plans and elevations using AutoCAD (R2000) for local designers.

4. The tool that I am most familiar with for accessibility symbols is Navigator, a symbols library within ArchT (14.5). ArchT is an architectural third-party add-on software to AutoCAD. It enables students to insert accessibility symbols (such as wheelchairs) into a drawing, while they are drawing. The symbol, is thus, a part of the drawing and is static.

5. Other tools that I have used with students include paper templates and/or plastic overlays with cut-outs of symbols. Again, these tools are static in that the symbol is either cut out and attached to or drawn on a drawing. As a static symbol, no movement is shown. In addition, because they are two-dimensional, even if they were moveable, the visual impact would be minimal, at best.

6. Clients often have difficulty visualizing design solutions—including accessibility. Students, who are training to become interior designers, must learn how to

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communicate to their clients visually. A three-dimensional tool, scaled to the drawing size, would be immensely helpful in both understanding the analysis themselves, and communicating with the client. Prior to Susan Duncan's invention of the Visualizer™ Set product, a tool of this sort did not exist, to my knowledge.


5 7. I have seen Ms. Duncan's Visualizer™ Set product and practiced with it on floor plans. It overcomes the limitations with prior accessibility tools in four ways: it is movable, it is three-dimensional, the base is clear so one can see through to the floor plan, and it is available in three different scales:  $\frac{1}{4}" = 1'$ ,  $\frac{1}{8}" = 1'$ , and  $\frac{1}{16}" = 1'$ . The use of this tool will certainly make any analysis of floor plans faster and more efficient. It is also easy to  
10 assemble and to manipulate.

8. Ms. Duncan's Visualizer™ Set product meets a unmet need in the field of interior design both for students who are training to become interior designers, educators of interior design, and interior design practitioners. Students, as well as others, can use it both to evaluate floor plans as they are creating them and to analyze existing floor plans.

15           9.     I consider the Visualizer™ Set tool an extremely valuable, and long-overdue, tool for the interior design industry. It will contribute greatly to understanding accessible design and moving the field of accessible and universal design forward.

I hereby further declare that all statements made herein of my own knowledge are true, and that all statements made on information and belief are believed to be true, and further, that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that willful false statements may jeopardize the validity of the application or any patent issued thereon.

Date: 1-25-04

  
Sandra Hartje, Ph.D.

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## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Susan M. Duncan

Attorney Docket No. ADAP-1-1002

Serial No.: 09/881,856

Group Art Unit: 2859

Filing Date: June 13, 2001

Examiner: T. Reis

Title: SPACE CONFIGURATION DESIGN TOOL

DECLARATION UNDER 37 C.F.R. § 1.132 OF LOUIS S. TENENBAUM  
TO THE COMMISSIONER OF PATENTS:

I, Louis S. Tenenbaum, having an address at P.O. Box 60027, Potomac,  
5 Maryland 20859, pursuant to 37 C.F.R. § 1.132, hereby state as follows:

1. I have worked in the field of home modifications since 1988. For the past  
several years I have added speaking, training and writing about home modifications to my  
work. I taught all over the country for Rebuilding Together with Christmas in April under a  
grant from the U.S. Administration on Aging. A copy of my CV is attached. I speak at  
10 conferences and seminars of professionals in the aging, health and construction industries.  
I write a column for HousingZone.com for professional remodelers working in home  
modifications.

2. My work involves design and planning for accessibility. The product of my  
work is enhanced independent function and safe care giving for people with disabilities.  
15 These results are achieved by changing the environment to make best use of the client's  
functional capabilities.

3. There are few specialized tools available for the designer of accessible  
environments or modifications. There are some standard product templates to use in  
drawings. The templates help see how design elements can be placed in a space. The  
20 templates are limited because they do not show how wheelchairs move through and amongst  
the space and the located design elements.

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4. A key to accessible design is the ability to picture and understand how a wheelchair is able to negotiate turns and spaces. This requires understanding the space the maneuvering wheelchair occupies in three dimensions—the height as well as length and width. It is not only the interface of the wheelchair on the floor that is important but the full  
5 height of the user in the environment. Wheelchair users occupy different amounts of space at different heights above the floor. The feet are widest, the knees next, then shoulders and the head. The space occupied by a spinning wheelchair has been compared to the space occupied by the layers of a wedding cake. Foot clearance needed in the space just above the floor is larger than the clearance needed for knees, and that larger than the space needed for  
10 shoulders. Evaluating a space for maneuvering has to occur at all levels. The floor space under a sink counter, for example, can accommodate feet, the space inside the drainpipe can accommodate the knees, while the counter itself bumps the wheelchair user at their lower chest cavity.

5. There is a great need for design tools that can help the designer view three  
15 dimensional layout issues on a set of drawings. There is also a need for tools that the designer can use to help clients and other non-designers to understand the issues in order to communicate the design and receive feedback. Many clients have limited experience with the medium of the design professional, traditionally including blueprint, scale and template.

6. I have had an opportunity to use a prototype of the Susan Duncan's  
20 Visualizer™ Set tool. It is extremely valuable for resolving the design and communication issues described above including the ability to picture the maneuverability of a wheelchair through spatial layout and the interface of the height dimensions of a wheelchair and user with the height of items in the space. In design work there are inevitably moments when experience and thoughtfulness do not fully inform the designer of the maneuverability  
25 afforded by a particular design. The Visualizer™ Set tool is an immediate assistance at overcoming these gaps.

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7. The Visualizer™ Set tool fills a long recognized gap in the accessible environments designer's tool kit. This tool has value for the designer working in their office. It has value as a teaching tool to explain the issues to groups. It has value to communicate to clients and other non-design professionals about the issues as well as about the details of a particular design. In addition the very availability of the Visualizer™ Set tool will be notice to designers not yet familiar with these issues that the issues exist. Buying and using the tool will reveal the issues to a user.

I hereby further declare that all statements made herein of my own knowledge are true, and that all statements made on information and belief are believed to be true, and further, that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that willful false statements may jeopardize the validity of the application or any patent issued thereon.

Date: 1/25/04  
Louis S. Tedenbaum25315  
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ADAP-1-101020017

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## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Susan M. Duncan Attorney Docket No. ADAP-1-1002  
Serial No.: 09/881,856 Group Art Unit: 2859  
Filing Date: June 13, 2001 Examiner: T. Reis  
Title: SPACE CONFIGURATION DESIGN TOOL

DECLARATION UNDER 37 C.F.R. § 1.132 OF MICHAEL MILLER  
TO THE COMMISSIONER OF PATENTS:

I, Michael Miller, residing at 7147 35<sup>th</sup> Ave SW, Seattle, Washington 98126, pursuant  
5 to 37 C.F.R. § 1.132, hereby state as follows:

1. I am the Americans with Disabilities Act (ADA) compliance manager for  
Sound Transit, 401 S. Jackson, Seattle, WA 98104. As such, it is my responsibility to review  
all capital project plans at the 30, 60, and 90 percent design stage for compliance with the  
ADA, ADA Accessibility Guidelines, International Building Code Accessibility Guidelines,  
10 Federal Transit Administration Accessibility Guidelines, Federal Highway Administration  
Accessibility Guidelines and Washington State Building Code Accessibility Guidelines. I am  
also responsible for conducting in-field evaluations during construction and developing  
as-built drawings after construction is complete.

2. I have been involved with accessibility issues for more than fifteen years in  
15 the areas of education, deaf, hard of hearing, program access and ADA compliance. I hold a  
Bachelors degree in Psychology with a minor in Deaf Studies and an Associates degree in  
Sign Language Interpreting.

3. In my work reviewing plans for compliance with various accessibility codes,  
I have used a variety of tools. These include architectural scales, CAD programs and various  
20 overlays. All of these tools are severely limited due to their static nature. It has been found

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that even using these tools, when actual construction takes place the plans do not necessarily insure that what is built is in compliance with applicable guidelines.

4. The drawbacks to current tools have pointed to the need for development of a tool that allows for a more visual check of designs. Susan Duncan's Visualizer™ Set product has filled that need. With the different scales available within the set, virtually any design plan can now be checked with more accuracy than was previously available. I have found that using the Visualizer™ Set tool has greatly reduced the time spent review plans to insure accessibility.

5. This tool will be of great benefit to professionals in a variety of fields including architecture, design and planning as well as to students in these fields.

I hereby further declare that all statements made herein of my own knowledge are true, and that all statements made on information and belief are believed to be true, and further, that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that willful false statements may jeopardize the validity of the application or any patent issued thereon.

Date: 1/26/2004

Michael S. Miller  
Michael Miller

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ADAP-1-1002DEC04MCM

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Seattle, Washington 98104  
206.381.3300 - F: 206.381.3301

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Susan M. Duncan

Attorney Docket No. ADAP-1-1002

Serial No.: 09/881,856

Group Art Unit: 2859

Filing Date: June 13, 2001

Examiner: T. Reis

Title: SPACE CONFIGURATION DESIGN TOOL

## DECLARATION UNDER 37 C.F.R. § 1.132 OF REX J. PACE

## TO THE COMMISSIONER OF PATENTS:

I, Rex J. Pace, residing at 1021-107 Nicholwood Drive, Raleigh, North  
5 Carolina 27605, pursuant to 37 C.F.R. § 1.132, hereby state as follows:

1. I am an architectural designer, illustrator, and author with sixteen years  
experience in accessible design. I am the principle of Universal Design Solutions, LLC, a  
design consultancy that evaluates, develops, and promotes accessible and universal design in  
housing, commercial and public buildings, and related architectural products. Before  
10 founding Universal Design Solutions, LLC I was employed by two organizations recognized  
for their national and international leadership on Universal Design and accessibility issues:  
the Center for Universal Design and Barrier Free Environments, Inc. For approximately five  
years at the Center for Universal Design I was the coordinator of the Technical Assistance  
program, a lead designer and project manager. Prior to my employment at the Center,  
15 I worked at the nationally recognized consulting firm Barrier Free Environments, Inc. During  
my eight years there, I created many of the illustrations for which the firm's manuals are  
noted and worked on numerous accessibility survey and compliance projects. I graduated  
from the School of Design of North Carolina State University in 1987.

2. Presently most similar design tools are based on the "overlay" concept. These  
20 are "templates"—clear plastic sheets with various graphics of wheelchairs printed on them  
that can be laid on top of scaled drawings. The Bobrick overlay best exemplifies this type of

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tool. Usually these types of templates are used to check drawings that have already been produced and are promoted as such. In a less similar way and in a different medium some computer aided design (CAD) programs allow the plan image of people using wheelchairs to be inserted or "pasted" into the actual construction drawing for reference.

5           3. I was personally involved in the development of the Bobrick overlay and artwork I created appears on the template. During that process I gained some insight into these issues. This Bobrick overlay serves its intended purpose well but should not be considered definitive as it does have some limitations. The principle limitation is its "static" nature in that it was not really designed to be moved over a drawing in a manner reflecting  
10 wheelchair maneuvering or paths of travel. This is apparent in the layout of such templates with multiple graphics at different scales included on a single sheet. Moving such templates over drawings in an effort to mimic wheelchair movements is cumbersome and creates a lot of distracting "visual" noise. Additionally there are really no handles, cutouts, or shaped edges which can be used to assist in moving the template across a horizontal surface. These  
15 layouts indicate the "reference sheet" approach rather than a dynamic movable model. Another limitation of this and all other similar tools that I am aware of are their exclusively two dimensional nature. As a result certain scale and spatial relationships are lost.

4. There has long been a need by professionals for a design tool that overcomes the limitations of existing tools describe above. In general good reference and design tools  
20 regarding design for people with disabilities in the built environment have been lacking. Particularly important are tools that can be use in the actual design process itself, ideally of an interactive nature. A tool specifically intended to be maneuvered across a drawing in a manner reflecting movements by people using wheelchairs provides extremely useful feedback in the development process whether it is in the initial concept stage or as a final  
25 check on a completed design. Such a tool would need to be designed to allow one to clearly see the drawing beneath, have an adequate handle or grip to move it, and offer a level of

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modularity to accommodate different scales. I believe up until now such a device did not exist.

5 I have had the opportunity to use Susan Duncan's Visualizer™ Set and consider it effective in its intended purpose and successful in meeting a present need among design professionals. The Visualizer™ Set addresses the two most important features  
10 presently lacking in similar design tools addressed in the sections above: maneuverability and three-dimensional scale reference. The Visualizer™ Set will increase the awareness of the spatial needs of people using wheelchairs and similar mobility devices. Furthermore, it will help give insight into how these needs can be met and represents a step in supporting our  
15 broader society's commitment to rights of people with disabilities and equal opportunity for all. I think this tool is the most valuable for students. In this respect, the Visualizer™ Set scale three-dimensional representation of a figure in wheelchair is particularly important. It brings to life the design implications in a total way and not just at the plan level. Indeed the concept of scaled icon figures that can be used interactively in the design process may be  
20 useful for a host of different user groups of which people with disabilities are only one.

I hereby further declare that all statements made herein of my own knowledge are true, and that all statements made on information and belief are believed to be true, and further, that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of  
20 Title 18 of the United States Code, and that willful false statements may jeopardize the validity of the application or any patent issued thereon.


Date:

1-25-03  
Rex J. Pace25315  
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ADAM-1-1002000000

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701 Fifth Avenue, Suite 4800  
Seattle, Washington 98104  
206.381.3300 - F: 206.381.3301

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Susan M. Duncan

Attorney Docket No. ADAP-1-1002

Serial No.: 09/881,856

Group Art Unit: 2859

Filing Date: June 13, 2001

Examiner: T. Reis

Title: SPACE CONFIGURATION DESIGN TOOL

DECLARATION UNDER 37 C.F.R. § 1.132 OF LAURIE RINGAERT  
TO THE COMMISSIONER OF PATENTS:

I, Laurie Ringaert, Director of The Center for Universal Design at North Carolina  
5 State University, Raleigh, North Carolina, pursuant to 37 C.F.R. § 1.132, hereby state as  
follows:

1. I have been involved with disability and access issues for over 20 years. I am  
an occupational therapist and hold a Masters of Science degree in Community Health  
Sciences. I am the Director of the Center for Universal Design at North Carolina State  
10 University in Raleigh, North Carolina. I am also the PI of the RERC. In addition, I am a  
universal design researcher, consultant, educator, and author.

2. I provide consultation to several building code, standards and guidelines  
committees and publications in Canada. I am a committee member of the National Building  
Code Fire, Safety and Occupancy Committee and Chair of the Barrier-Free Working Group.  
15 I am also a committee member of the Canadian Standards Committee B651 and the Chair of  
the Automated Banking Machine Standard B651-1.

3. I have served as principal investigator on several research projects in both  
qualitative and quantitative research. I have coordinated, conducted and analyzed several  
focus group projects including a post-occupancy study of a long term care facility. I have  
20 served as a test site coordinator for the World Health Organization's (WHO) testing of the

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ADAP-1-1002DEC04LR

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International Classification of Impairment Disability and Handicap and I am a member of the WHO Environmental Task Force.

4. I am an active participant internationally in the universal design and disability studies communities. I have been an invited speaker on the topic in both the United States and China. I have provided universal design seminars in Canada to Ukrainian and Russian delegates of CCDS's Canadian International Development Agency related to (CIDA) funded projects. I have traveled to Russia and Estonia to provide seminars and project development as part of the CCDS CIDA project delegation.

5. I recently co-authored the booklet: "Is Your Business Open to All?" (2000) and I co-authored the CD-ROM: "Universal Design Resource 2000," which provides a comprehensive source of websites, articles, and resources on universal design. I am the author of "User/expert Involvement in Universal Design," a chapter in the Universal Design Handbook by W. Preiser and E. Ostroff (2001) McGraw-Hill.

6. Historically, design tools for use in universal design have been based on the "overlay" concept—using static templates, laid on top of scaled drawings, to assist in determining required plan spacing. Unfortunately, because these static templates are immobile, they cannot effectively be used to visualize the movement of representative wheelchairs or other mobility devices to determine adequacy of space designs. There has been a long time need for a design tool that overcame this serious limitation of existing tools.

7. I have had the opportunity to use Susan Duncan's Visualizer™ Set. This is a space configuration design tool that provides an icon or component scaled to indicate turning radius to imitate the turning radius and wheelchair footprint when used in association with design plans showing circulation through and to buildings and other facilities.

8. I was able to use a demonstration version of the Visualizer™ Set for a few of my training sessions. I found it to be beneficial as a teaching tool to demonstrate effectively problematic areas in a design plan. The audience was also impressed and felt it would be

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beneficial to use on plans they would either evaluate as an access consultant or for designers who were involved in design of spaces.

9. I believe that there has long been the need for this type of tool for the design and construction industry. It quickly provides information to the designer or contractor on areas that may be deficient as to universal design. I consider Ms. Duncan's Visualizer™ Set to be effective for its intended purpose and successful in meeting this long-time need among design professionals.

I hereby further declare that all statements made herein of my own knowledge are true, and that all statements made on information and belief are believed to be true, and further, that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that willful false statements may jeopardize the validity of the application or any patent issued thereon.

Date: \_\_\_\_\_

Laurie Ringaert

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ADAP-1-1002DEC06LR

BLACK LOWE & GRAHAM <sup>INC</sup>

701 Fifth Avenue, Suite 4800  
Seattle, Washington 98104